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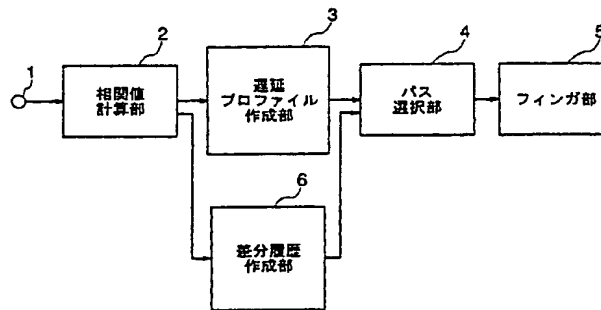
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[続葉有]

(54) Title: RAKE RECEIVER APPARATUS AND RECEIVING METHOD

(54) 発明の名称: RAKE受信機及び受信方法



2...CORRELATION VALUE CALCULATING UNIT
3...DELAY PROFILE PRODUCING UNIT
6...DIFFERENCE HISTORY PRODUCING UNIT
4...PATH SELECTOR UNIT
5...FINGER UNIT

(57) Abstract: A RAKE receiver apparatus and receiving method for realizing an efficient path assignment to a finger in a CDMA mobile communication system. A correlation value calculating unit (2) calculates, in all the timings that allow RAKE receptions, a correlation value between a received signal inputted from an input terminal (1) and a spread code and outputs the calculated correlation value to a delay profile producing unit (3) and to a difference history producing unit (6). The delay profile producing unit (3) calculates and notifies, as a delay profile, an averaged correlation value to a path selector unit (4). The difference history producing unit (6) compares, in each reception timing, the latest correlation value notified by the correlation value calculating unit (2) with the preceding correlation value held by the difference history producing unit (6) to produce and notify a difference history to the path selector unit (4). The path selector unit (4) sorts the delay profiles in decreasing order of the averaged correlation values, and assigns, if a delay profile and a difference history meet all of predetermined requirements, the reception timing to a finger, then notifying the reception timing to a finger unit (5).

[続葉有]

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a RAKE receiver and a receiving method, which efficiently allocate a path to a finger in a CDMA mobile communication system.

SOLUTION: A correlation value calculating part 2 calculates the correlation value of a reception signal and a diffusion code, which are inputted from an input terminal 1, at all timings which can be RAKE-received and outputs it to a delay profile generating part 3 and a differential history generating part 6. The delay profile generating part 3 calculates an average correlation value and informs a path selecting part 4 of it as a delay profile. The differential history generating part 6 compares the latest correlation value informed from the correlation value calculating part 2 with the previous correlation value which it itself keeps at every reception timing, obtains differential history and informs the path selecting part 4 of it. The path selecting part 4 rearranges the delay profiles in order from the largest average correlation value. When the delay profile and differential history satisfy a prescribed condition, the reception timing is allocated to the finger and it is informed to a finger part 5.

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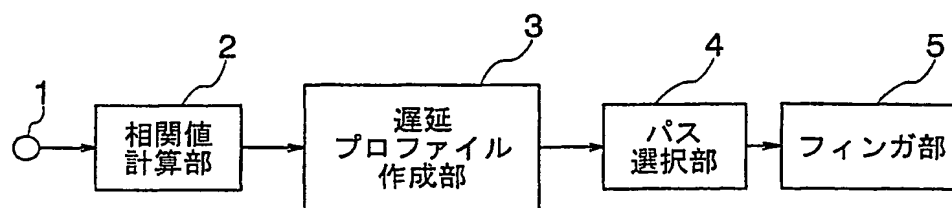


図 1

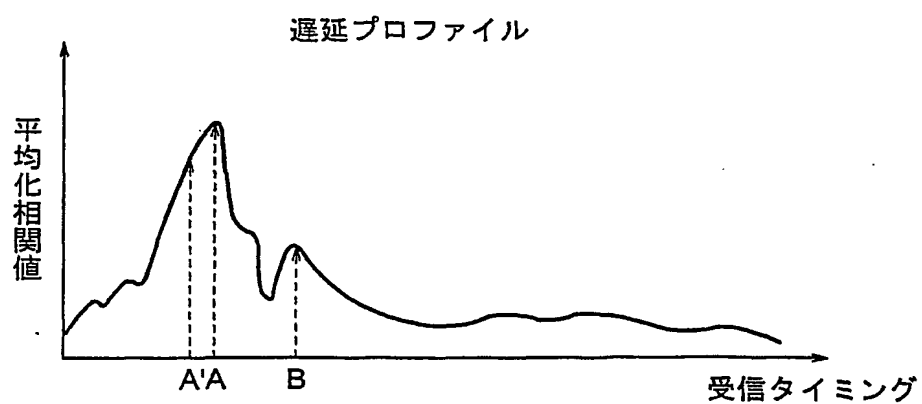


図 2

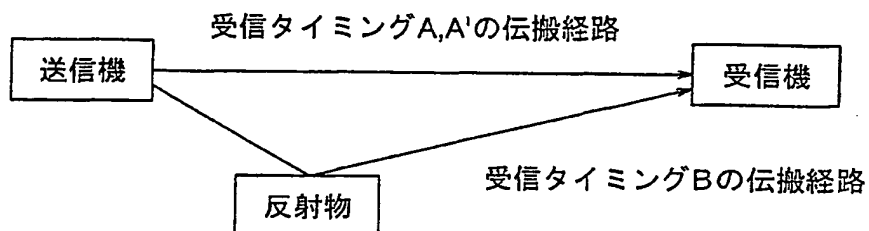


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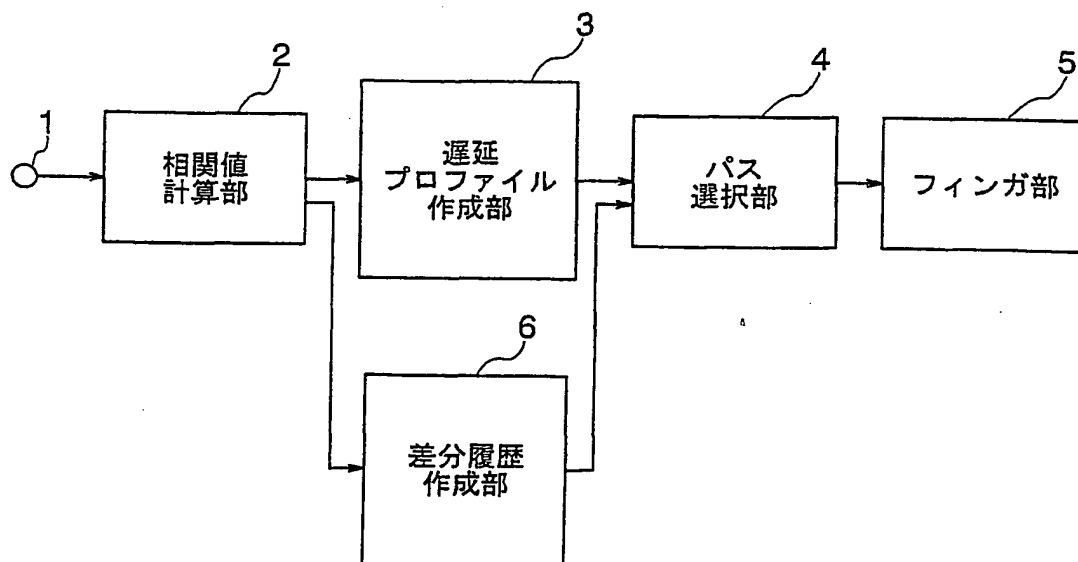


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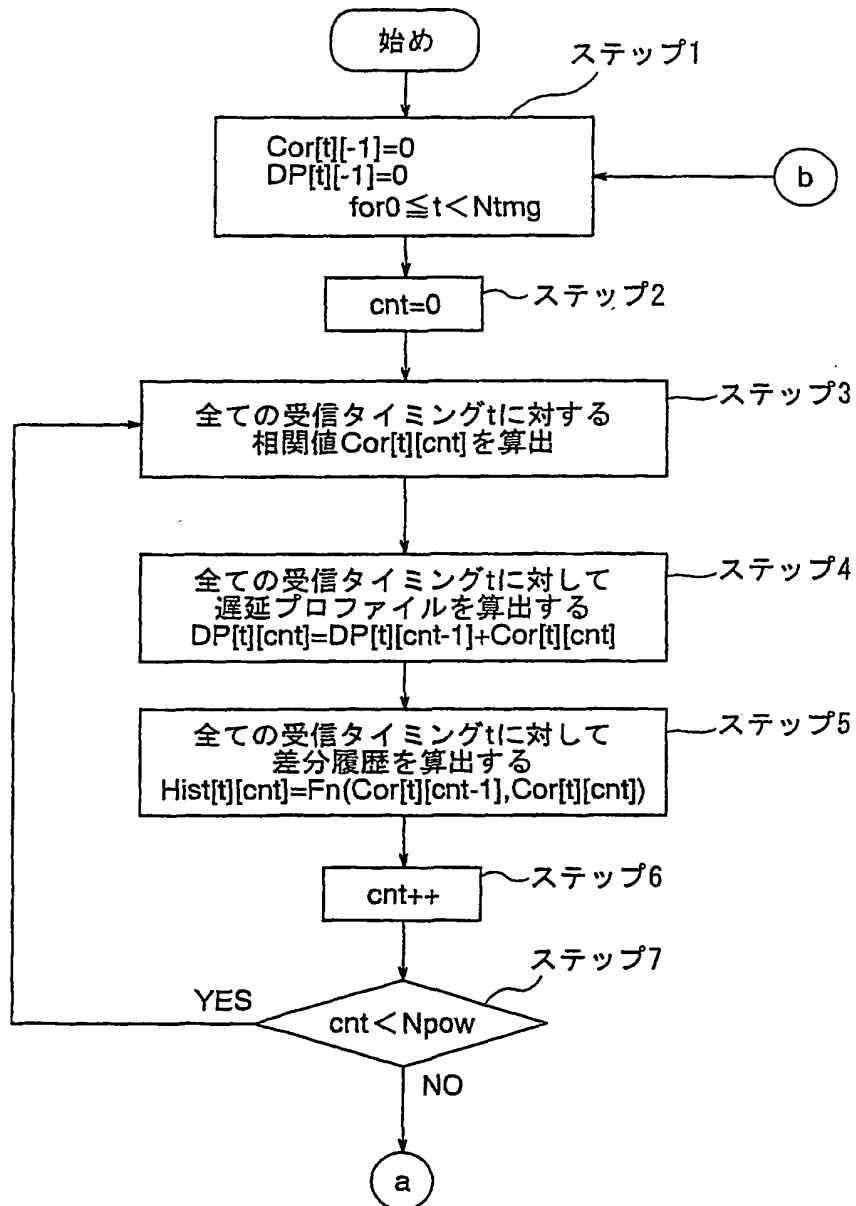


図 5

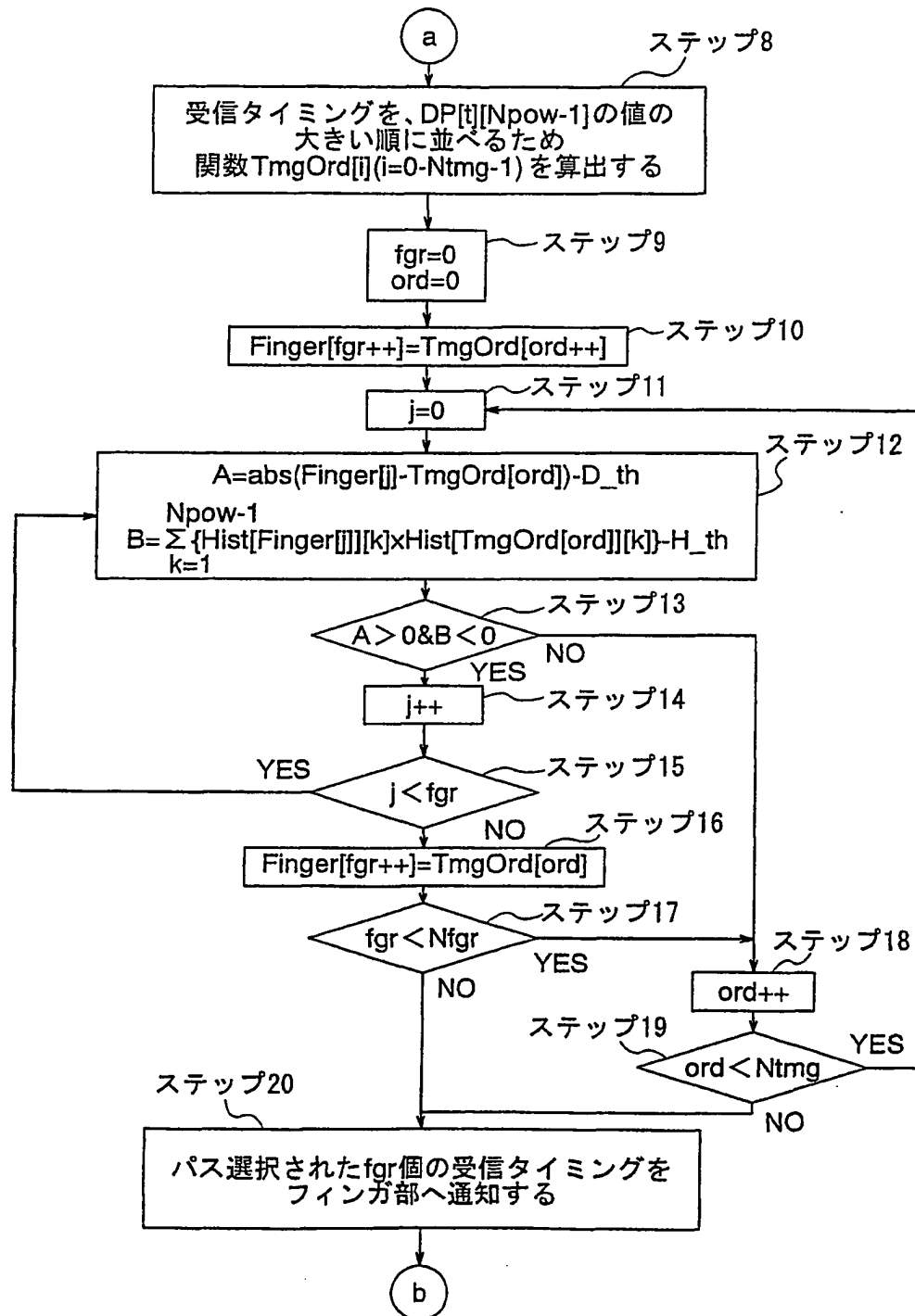


図 6